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COMMONWEALTH of VIRGINIA

Department of Health

P O BOX 2448
RICHMOND, VA 23218

TTY 7-1-1 OR
1-800-828-1120

May 2, 2008

James Golden, Deputy Director
Virginia Department of Environmental Quality
629 East Main Street
P. O. Box 1105
Richmond, Virginia 23218

Dear Mr. Golden:

You have asked for our guidance in responding to health concerns from citizens who live near biosolids application sites. The following recommendations are designed to provide an abundance of caution in response to citizen's concerns. There are no data indicating this increased caution is necessary, but we determined that providing these additional measures might make administering the program more practical.

We recommend that, in addition to the extending the existing buffer of 100 feet to 200 feet between all property lines at which the public may have access and any part of the application site, no application should be permitted within 400 feet of any occupied dwelling.

The practice of the Department of Health, when the biosolids program was located here, was to extend the buffer to 400 feet in situations where an individual had been identified with medical conditions that could result in increased risk¹. We found that this policy was difficult to implement, and are therefore recommending that these extended buffers be added in all situations. This should minimize the need for individual considerations.

If individuals assert that they need additional protection, we recommend that they contact the local District Health Director to request an individual assessment be performed. We would anticipate that there would be very few situations where extended buffers or other controls would be warranted.

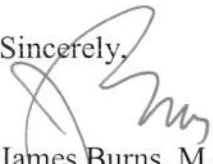
¹ Respiratory diseases include Asthma (must require bronchodilator therapy); Chronic obstructive pulmonary disease; Emphysema and Cystic fibrosis. Immunodeficiency and immunosuppression conditions; including Chemotherapy, for two weeks before starting a course of chemotherapy and for one month after completing a course of chemotherapy, or with an absolute neutrophil count less than 1000/mm³; Organ transplant recipient, for 4 months after transplantation; HIV infected with CD4 count below 200; Primary immunodeficiency, exclusion will vary depending upon the diagnosis

Though biosolids have been applied to land for many years without scientific evidence of harm to humans, it is not possible to make a definitive statement about the safety of biosolids. As the National Research Council's report Biosolids Applied to Land concludes: "There is no documented scientific evidence that the Part 503 rule has failed to protect public health. However, additional scientific work is needed to reduce persistent uncertainty about the potential for adverse human health effects from exposure to biosolids."

For many contaminants the level of exposure over time (particularly low-level and chronic exposure to multiple age groups and those with immune vulnerabilities) that can be considered 'safe' or a very low-level risk is not known and is difficult to study. Long term health effects are challenging to study and quantify due to a variety of issues. Further difficulty includes not always having knowledge of the actual contents of the sludge and a complete lack of knowledge regarding health effects for some of the contaminants that may be present and the difficult issue of the toxicology of mixtures of compounds. Class B biosolids may contain a wide variety of contaminants in addition to the 9 regulated contaminants. These include enteric bacteria, viruses, endotoxins, and parasites, organic and inorganic materials. The potential interactions of chemical contaminants with low levels of pathogens in individuals who may have an increased risk of infection due to allergic and irritant reactions that may compromise the normal barriers to infection also need to be considered. However, the physical nature of biosolids and the application process is such that very little of the material leaves the application site.

The best current conclusion is that biosolids applied in compliance with federal and Virginia standards pose very little risk to human health if applied following the applicable laws and regulations. Our recommendation in this letter further decreases that risk.

When requested by your Department, the local District Health Director will attend public meetings to assist in addressing public health concerns. If you have additional questions, please do not hesitate to contact me.

Sincerely,

James Burns, M.D., M.B.A.
Deputy Commissioner